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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,157	02/06/2002	Peter D. Hallenbeck	013883-000001	7492
24239	7590	01/24/2006	EXAMINER	
MOORE & VAN ALLEN PLLC P.O. BOX 13706 Research Triangle Park, NC 27709			LIN, KENNY S	
			ART UNIT	PAPER NUMBER
			2154	
DATE MAILED: 01/24/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/068,157	HALLENBECK, PETER D.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Kenny Lin	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 7-15 and 57-67 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-15, 57-67 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12/12/05</u>  | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. Claims 7-15 and 57-67 are presented for examination. Claims 1-6 and 16-56 are withdrawn.

### ***Information Disclosure Statement***

2. The IDS filed on 12/12/05 has been considered.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 7-15 and 57-67 are rejected under 35 U.S.C. 102(b) as being anticipated by Dolin Jr. et al (Dolin), US 5,737,529.

5. Dolin was cited in the IDS by the applicant.

6. As per claim 7, Dolin taught the invention as claimed including a machine readable memory encoded with a data structure for aliasing inputs to provide a virtual input in a premises automation system, the data structure comprising:

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- a. A description of a logical relationship (col.11, lines 59-67, col.12, lines 1-23, table I, II, III, IX, XI);
- b. A plurality of entries related to a premises to which entries the logical relationship applies, each entry producing a Boolean result on which the logical relationship operates to produce a single Boolean outcome for the virtual input (col.9, lines 59-67, table I, II, V, IX, XI), each entry further comprising:
  - i. At least a first input identifier serving as a first operand (col.11, lines 59-67, col.12, lines 1-23, table I, II; e.g. temp\_in);
  - ii. At least one operator (col.11, lines 59-67, col.12, lines 1-23, table I, II; e.g. when); and
  - iii. At least a second operand (col.11, lines 59-67, col.12, lines 1-23, table I, II; e.g. io\_changes(temp\_in)); and

Wherein a storage bit corresponds to the virtual input to represent a state of the premises (col.9, lines 59-67, col.12, lines 44-46, table I, II, V).

7. As per claim 11, Dolin taught the invention as claimed including a method for aliasing inputs in a premises automation system, the method comprising:

- a. Producing a plurality of Boolean results, one Boolean result for each of a plurality of entries related to a premises, each entry further comprising at least a first input identifier serving as a first operand, at least one operator, and at least a second operand (col.11, lines 59-67, col.12, lines 1-23, table I, II, III, V, IX, XI);

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- b. Applying a logical relationship to the plurality of Boolean results to produce a single Boolean outcome for a virtual input (col.9, lines 59-67, col.11, lines 59-67, col.12, lines 1-23, table I, II, III, V, IX, XI); and
- c. Setting a storage bit corresponding the virtual input to represent a state of the premises (col.9, lines 59-67, col.12, lines 44-46, table I, II, V, XI).

8. As per claim 15, Dolin taught the invention as claimed including apparatus for providing a virtual input in a premises automation system, the apparatus comprising:

- a. Means for producing a plurality of Boolean results, one Boolean result for each of a plurality of entries related to a premises, each entry further comprising at least a first input identifier serving as a first operand, at least one operator, and at least a second operand (col.11, lines 59-67, col.12, lines 1-23, table I, II, III, V, IX, XI);
- b. Means for applying a logical relationship to the plurality of Boolean results to produce a single Boolean outcome for the virtual input (col.9, lines 59-67, col.11, lines 59-67, col.12, lines 1-23, table I, II, III, V, IX, XI); and
- c. Means for setting a storage bit corresponding to the virtual input to represent a state of the premises (col.9, lines 59-67, col.12, lines 44-46, table I, II, V, XI).

9. As per claim 57, Dolin taught the invention as claimed including an input/output unit for use in premises automation, the input/output unit comprising:

- a. A processor for controlling the operation of the I/O unit (col.6, lines 48-56; control cells; col.10, lines 43-63);

- b. A plurality of inputs operatively connected to the processor, at least some of the inputs operable receive communication related to a premises from premises-based apparatus (col.6, lines 48-67, col.7, lines 1-2, col.10, lines 43-63, table V); and
- c. A memory connected to the processor, the memory encoded with program code to enable the processor to control the operation of the I/O unit to provide input aliasing through a data structure (col.10, lines 43-63) further comprising:
  - i. A description of a logical relationship (col.11, lines 59-67, col.12, lines 1-23, tables I, II, III, V, IX, XI);
  - ii. A plurality of entries corresponding to the inputs to which entries the logical relationship applies, each entry producing a Boolean result on which the logical relationship operates to produce a single Boolean outcome for a virtual input (col.9, lines 59-67, table I, II, V, IX, XI), each entry further comprising:
    - 1. at least a first input identifier serving as a first operand (col.11, lines 59-67, col.12, lines 1-23, table I, II, V);
    - 2. at least one operator (col.11, lines 59-67, col.12, lines 1-23, table I, II, V); and
    - 3. at least a second operand (col.11, lines 59-67, col.12, lines 1-23, table I, II, V);

wherein a storage bit corresponding to the virtual input represents a state of the premises (col.9, lines 59-67, col.12, lines 44-46, table I, II, V).

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10. As per claim 61, Dolin taught the invention as claimed including an input/output unit for use in premises automation, the input/output unit comprising:

- a. A processor for controlling the operation of the I/O unit (col.6, lines 48-56; control cells; col.10, lines 43-63);
- b. A plurality of inputs operatively connected to the processor, at least some of the inputs operable to receive communication related to a premises from premises-based apparatus (col.6, lines 48-67, col.7, lines 1-2, col.10, lines 43-63); and
- c. A memory connected to the processor, the memory encoded with program code to enable the processor to control the operation of the I/O unit to provide input aliasing by producing a plurality of Boolean results (col.10, lines 43-63), one Boolean result for each of a plurality of entries, each entry further comprising at least a first input identifier and applying a logical relationship to the plurality of Boolean results to produce a single Boolean outcome for setting a storage bit as a virtual input representing a state of the premises (col.11, lines 59-67, col.12, lines 1-23, 44-46, table I, II, III, IX, XI).

11. As per claims 8 and 12, 58, 62, Dolin taught the invention as claimed in claims 7, 11, 57, 61. Dolin further taught that the second operand in the least one of the plurality of entries is a second input identifier (col.11, lines 59-67, col.12, lines 1-23).

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12. As per claims 9-10 and 13-14, 59-60, 63-64, Dolin taught the invention as claimed in claims 7-8, 11-12, 57-58, 61-62. Dolin further taught that the second operand in at least one of the plurality of entries is a stored value (col.11, lines 59-67, col.12, lines 1-23).

13. As per claim 65, Dolin taught the invention as claimed in claim 15. Dolin further taught that the second operand in at least one of the plurality of entries is a data structure including a second input identifier (col.11, lines 59-67, col.12, lines 1-23).

14. As per claims 66-67, Dolin taught the invention as claimed in claims 15 and 65. Dolin further taught that the second operand in at least one of the plurality of entries is a data structure including a stored value (col.11, lines 59-67, col.12, lines 1-23).

### *Response to Arguments*

15. Applicant's arguments filed 12/12/2005 have been fully considered but they are not persuasive.

16. In the remark, applicant argued that (1) There is no logical relationship that produces a single virtual input (2) Many of the relationships shown in the tables are algebraic and not Boolean.

17. Examiner traverse the argument:



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As to points (1) and (2), Dolin taught a logical relationship that produces a single virtual input in table I that:

if (temp\_in > on\_threshold) temp\_high = true;

if (temp\_in < off\_threshold) temp\_high = false;

These logical relationship produces a single Boolean outcome of either true or false (temp\_high is a Boolean variable). Dolin further disclosed in column 9, lines 59-67 that the Boolean outcome (e.g. state of temp\_in) may be used by a control program (i.e. for the virtual input). The if condition clearly shows that this relationship is a logical relationship.

### *Conclusion*

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Fukunaga et al, US 6,144,993.

19. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenny Lin whose telephone number is (571) 272-3968. The examiner can normally be reached on 8 AM to 5 PM Tue.-Fri. and every other Monday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ksl  
January 18, 2006

 **JOHN FOLLANSBEE**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**